

EXECUTIVE SECRETARIAT

ROUTING SLIP

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Remarks

Please note: Ltr addressed to Mr. Deby.

Executive Secretary

15 Oct 85

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Jay Schlegel

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10 January, 1985

Mr. William Colby, Director
Central Intelligence Agency
Washington, D.C. 20505

Executive Flag

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Dear Mr. Director:

The purpose of this letter is to advance the author's assessment of our nation's nuclear strategy and policies.

I. INTRODUCTION

In light of recent studies on nuclear warfare by Ambio, Turco et al, and the Office of Technology Assessment (OTA), it is apparent that the use of a large number of high yield nuclear weapons may shock the earth's biosphere to the extent that it would no longer be supportive of many life forms. The currently little understood short and long term synergistic effects of a large scale nuclear exchange could cause the ecology of this planet to enter a de-evolutionary state.

The references cited above suggest millions of life forms (including perhaps our own) may become extinct due to the ensuing "nuclear winter" and the reduction in the ozone layer. The author wishes to offer suggestions to our nation's leaders that would reduce this threat, and still allow the U.S. to maintain a credible nuclear deterrent. The proposals to be described in this letter may be of interest in future arms control talks with the USSR.

The goals of the author's proposal are (1) to suggest a method of nuclear warfare that would decrease the chances of irreversible damage to the earth's ecosystem (2) reduce the number of casualties that would result from a nuclear war.

II. DISCUSSION

Using the "base line exchange" strategy proposed by numerous researchers, it is apparent that most of the nuclear weapons that would be detonated in an attack (and the ensuing retaliation strike) would be of a high yield, or greater than 100 kt. Current data available to the public suggests that present day and future arsenals for both the USA and the USSR consist of such high yield weapons. Other scenarios also suggest that 90-95% of the detonations would have yields greater than 100 kt. The research suggests these high yield detonations would be responsible for lofting dust clouds into the stratosphere. In addition, these explosion would inject large amounts of nitrogen compounds into the ozone layer, causing substantial ozone depletion.

Studies of past detonations indicate the mushroom clouds resulting from tests of nuclear

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devices with yields less than 100 kt remain largely in the lower portion of the atmosphere. In contrast, the debris from high yield weapons was deposited mainly in the stratosphere.

Due to the complex nature of nuclear detonations, the uncertainties of yields and the uncertainties of the delivery vehicles (large circular error probable or CEP), development of high yield weapons was justified prior to this decade. For example, hardened military targets such as missile silos required high yield weapons to create the huge overpressures over large areas to destroy the intended targets. Although smaller yield devices also will create the desired overpressures, their use on hard targets has not been considered since most current delivery systems still have a large CEP.

Current and future development of terminal guidance systems will greatly reduce the CEP and thereby lessen the areas over which the huge overpressures must be generated to destroy hard targets. The net result: smaller weapons can be used to do the same job.

Military planners also have targeted sites such as refineries and industrial centers. While such targets are important in conventional warfare, their destruction in a nuclear war serves only as a punitive measure. Millions of people would be killed since these targets often lie in highly populated areas. When a planner includes such targets in the strategy, his only goal is to destroy the population's supporting infrastructure.

III. THE PROPOSAL

As stated previously, the purpose of the following proposal is to reduce the possibility of a nuclear winter following a large exchange. The author believes that with the development of terminal guidance systems, the need for high yield weapons is no longer justified in either the USA or the USSR. The proposals are listed below. An elaboration of each will follow.

- 1: All warheads must have a yield not to exceed 100 kt.
- 2: Each side should be allowed to deploy a finite number of warheads depending upon the number of military targets it builds
- 3: Each side should make a non-preemptive pledge
- 4: Any in-place or proposed "doomsday" devices or policies are to be abandoned.

ITEM 1: Both sides are developing delivery vehicles that are much more accurate than in the past. Future CEP's will probably be only a few meters. High yield weapons are no longer needed to destroy hard targets. Each side should agree to a timetable when all weapons with greater than 100 kt yields would be taken off line and dismantled.

The 100 kt limit would apply to all war-heads, whether strategic, theater or tactical.

ITEM 2: Future targets should be limited only to those that directly support nuclear warfare, such as ICBM silos, ships, subs, and aircraft fields. Targets such as nuclear electrical generating stations and infrastructure that does not support nuclear warfare should be exempt.

ITEM 3: In addition to the USA and USSR making a pledge not to preempt, other nations possessing nuclear material or nuclear weapons also should make this pledge. A treaty to this effect should be signed by all nations that possess nuclear material.

ITEM 4: Each side must disarm any "doomsday" policies and systems in place. No launch on warning systems should be allowed on either side.

IV. CLOSING STATEMENTS

The author does not support a nuclear freeze, since that alternative would only maintain the threat of a nuclear winter if high yield weapons were used in war. It is the author's understanding that the "build down" theory now being considered for negotiation has that same deficiency. Proposals by some groups and individuals to abolish nuclear weapons are not considered as viable alternatives, since from an historical standpoint, mankind has not opted to pursue a regressive course in weapon development.

The author is available for further discussion. Copies of this letter have been mailed to the President, Secretary of Defence, and the Secretary of State.

sincerely,

Jay Schlesel
Jay Schlesel

Phone numbers:

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